

# Transmittal

Date: April 15, 2022

To: Lilian Abreu  
Remedial Project Manager, Superfund Division  
U.S Environmental Protection Agency Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

From: Joshua Nandi, Environmental Project Manager  
Northrop Grumman  
One Space Park  
Mail Stop: NGC CER-XE6D21  
Redondo Beach, CA 90278

Subject/Title: Evaluation of Passive Sub-Slab Depressurization System  
Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, CA

CC: Holly Holbrook, AECOM  
Mark Riley, AECOM

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Northrop Grumman is submitting the above-referenced

<input checked="checked" type="checkbox"/>	For your review and comment
<input type="checkbox"/>	For your information and file
<input type="checkbox"/>	For your approval
<input type="checkbox"/>	For your signature

Total number of copies sent:

**Remarks:**

If you have any questions or comments regarding the enclosed report, please feel free to contact Joshua Nandi at [Joshua.Nandi@ngc.com](mailto:Joshua.Nandi@ngc.com).

April 15, 2022

Lilian Abreu  
Remedial Project Manager  
Superfund & Emergency Response  
Division  
United States Environmental Protection  
Agency, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**Re: Evaluation of Passive Sub-Slab Depressurization System, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California (CERCLIS ID#CAD00915988)**

Dear Ms. Abreu,

At the request of the United States Environmental Protection Agency (USEPA), AECOM, on behalf of Northrop Grumman Systems Corporation (Northrop Grumman), evaluated the current configuration and status of the rooftop vents associated with the Passive Sub-Slab Depressurization (SSD) System, installed at the site in 2014. In their letter dated October 7, 2021, USEPA noted that several of the vents were reconfigured by the current building tenant after initial installation of the SSD System was completed in 2014.

Seven vents were originally installed as part of the SSD System in 2014 prior to the installation of the existing heating, ventilation, and air conditioning (HVAC) system (three on the Main Building, two on the West Lobby Building and two on the North Building, as shown on **Figure 1**). The existing HVAC system was subsequently installed by the current building tenant between May and December of 2015 without consideration for the location of the SSD System vents and their function. As result, the three vents on the Main Building Roof and two vents on the West Lobby Building Roof were put in close proximity to the HVAC intakes. The two vents on the North Building are not located near HVAC intakes and not of concern.

The objective of the evaluation is to relocate the vents on the affected buildings outside the assumed sphere of influence of the HVAC intakes. As stated in the Engineering Issues: Indoor Air Vapor Intrusion Mitigation Approaches (USEPA, 2008), the recommended distance from the riser vents to the HVAC intakes is 10 feet. A conservative safety factor of 2.5 was applied to the 10-foot recommendation, resulting relocation of the vents to a minimum of 25 feet away from HVAC intakes.

**Figure 1** shows an aerial view of the three vents on the Main Building Roof and the two vents on the West Building roof and their proposed relocation outside the 25-foot spheres drawn around each intake.

The Main Building vent risers are proposed to be relocated approximately 27 feet to the south of the existing vents and approximately 42 feet from the nearest HVAC intake (**Figure 1**). The West Lobby Building vent risers are proposed to be relocated approximately 15 feet to the northeast, placing them approximately 37 feet away from the nearest HVAC intake (**Figure 2**). The height of the risers is designed to allow for airflow across the turbines while maintaining the overall building profile with all equipment located below the top of the windscreen at the edge of the building. The proposed piping schematic is shown on **Figure 3**. The scope of work will involve removing the existing turbines, trimming the vent to height, placing a 90-degree elbow, and routing the pipe horizontally to the new vent riser location as shown on **Figure 3**. The piping will be supported on the roof using Dura-blocks consistent with the existing supports for piping and conduit. The risers will be secured to existing structures as shown on **Figure 2** and **Figure 3**.



With USEPA approval, Northrop Grumman will proceed with the final design and implementation of these modifications. If you have any questions or would like to discuss, please contact Joshua Nandi, the Northrop Grumman Project Manager for this site, at 310-912-8307 or [joshua.nandi@ngc.com](mailto:joshua.nandi@ngc.com).

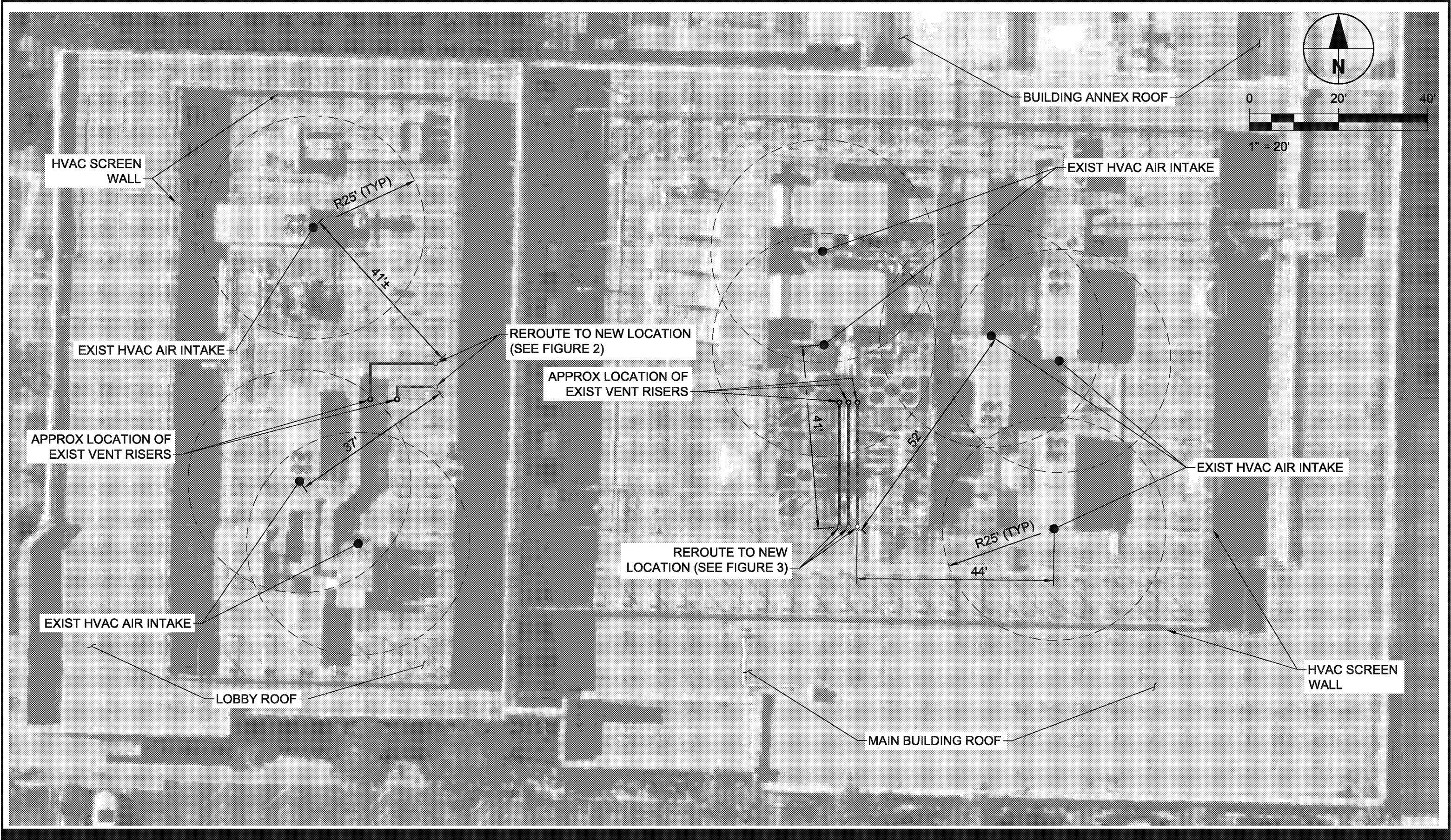
Thank you,

A handwritten signature in black ink, appearing to read 'Holly Holbrook', followed by a horizontal line.

Holly Holbrook  
AECOM Project Manager  
AECOM  
T: 714-689-7215  
M: 562-577-6058  
E: [Holly.Holbrook@aecom.com](mailto:Holly.Holbrook@aecom.com)

cc: Joshua Nandi, Northrop Grumman  
Mark Riley, AECOM

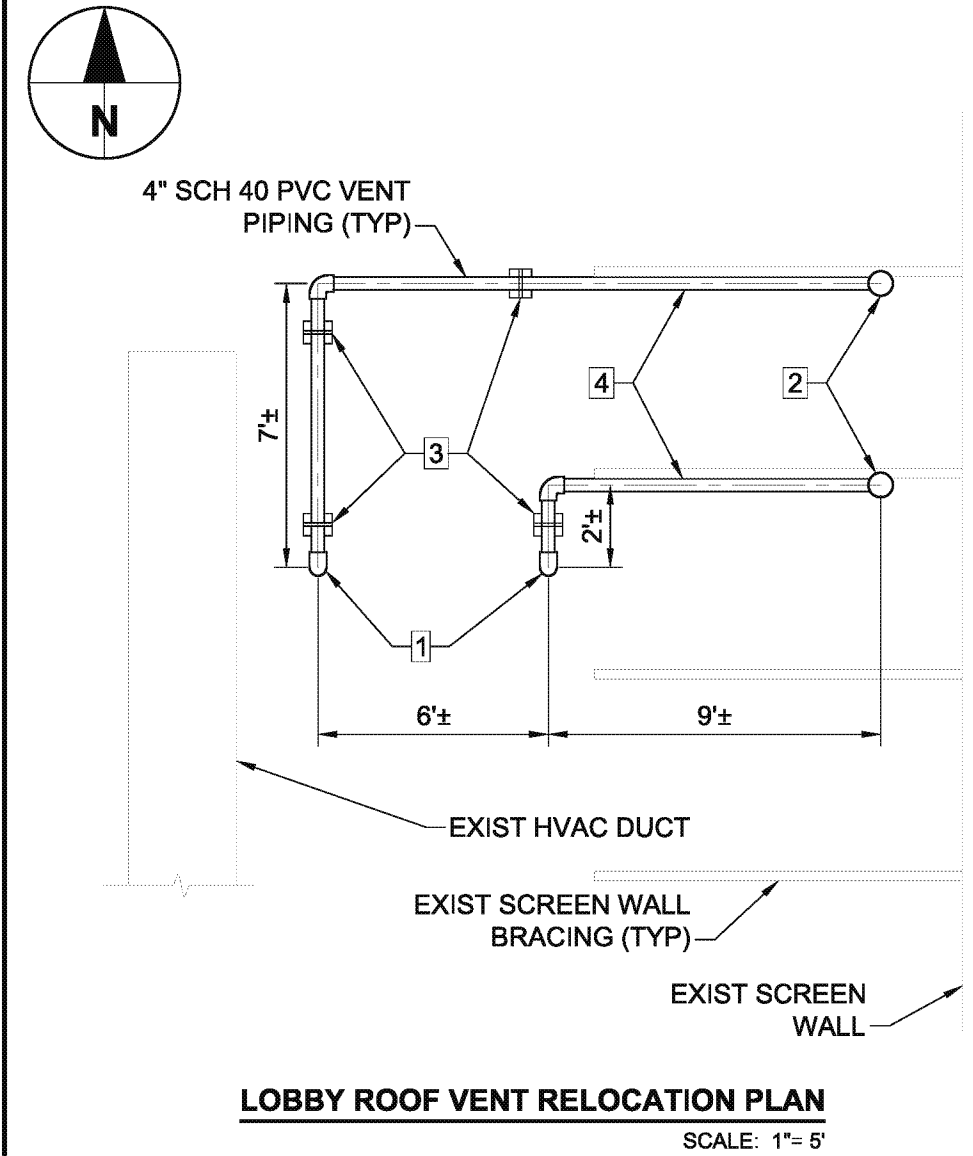
Attachment: Proposed SSD Modification Drawings



Former TRW Microwave Facility  
Vapor Collection System - Roof Venting Compliance  
825 Stewart Dr, Sunnyvale, CA  
Project No: 60680270 Date: March 2022

ROOF PLAN

**AECOM**  
Figure: 1



**LOBBY ROOF VENTS LOOKING NORTH**

**CONSTRUCTION NOTES**

1. REMOVE EXISTING VENT TURBINE, CUT PVC RISER AND INSTALL 90° BEND.
2. INSTALL NEW 4" SCHEDULE 40 PVC RISER AND ATTACH SALVAGED VENT TURBINE.
3. INSTALL PIPE SUPPORT AT 5' MAX SPACING (DURABLOK SERIES DB-20 ROOFTOP SUPPORT SYSTEM OR EQUAL).
4. MOUNT NEW 4" SCH 40 PVC PIPE TO EXIST SCREEN WALL HORIZONTAL BRACING.

